1/52

FIG. 1A

anthraflavic acid

9-anthracene carboxylic acid 9-anthracene methanol 2

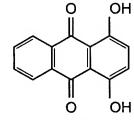
3

9-anthracene ethanol

9-anthracene propanol 5

9-anthracene butanol 6

alizarin



quinizarin 8

FIG. 1F

$$H_3CO - N=N - C-O(C_3H_6)Si(OC_2H_5)_3$$

4-methoxyphenylazobenzene-4-carboxy propyl triethoxysilane

FIG. 1B

O(CH₂)₃Si(OCH₃)₃

2-hydroxy-4-(3-triethoxysilylpropoxy)diphenylketone 10 2-hydroxy-4-(3-trimethoxysilylpropoxy)diphenylketone 11

2-hydroxy-4-(3-tributoxysilylpropoxy)diphenylketone 12 2-hydroxy-4-(3-tripropoxysilylpropoxy)diphenylketone 13

rosolic acid

triethoxysilylpropyl-1,8-naphthalimide 15

trimethoxysilylpropyl-1,8-naphthalimide

tripropoxysilylpropyl-1,8-naphthalimide 17

FIG. 1C

9-anthracene carboxy-methyl triethoxysilane (TESAC)

18

O O(C₂H₄)Si(OC₂H₅)₃

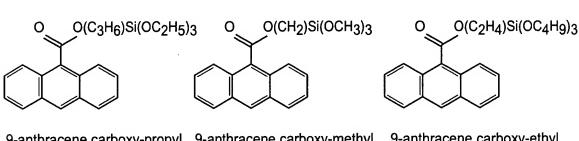
O O(C₂H₄)Si(OC₂H₅)₃

O O(C₄H₈)Si(OC₂H₅)₃

9-anthracene carboxy-ethyl triethoxysilane

19

20



9-anthracene carboxy-propyl 9-anthracene carboxy-methyl 9-anthracene carboxy-ethyl triethoxysilane (TESAC) trimethoxysilane tributoxysilane 21 22 23

9-anthracene carboxy-methyl 9-anthracene carboxy-methyl phenyltriethoxysilane tripropoxysilane trimethoxysilane 26

FIG. 1D

10-phenanthrene carboxy-methyl triethoxysilane 29

10-phenanthrene carboxy-ethyl triethoxysilane 30

10-phenanthrene carboxy-methyl trimethoxysilane 31

10-phenanthrene carboxy-propyl triethoxysilane 32

4-phenylazophenol

4-ethoxyphenylazobenzene-4-carboxy methyl triethoxysilane 34

$$\text{H}_3\text{CO} \longrightarrow \text{N=N} \longrightarrow \overset{\text{O}}{\overset{\text{II}}{\text{C}}} - \text{O}(\text{C}_2\text{H}_4)\text{Si}(\text{OC}_2\text{H}_5)_3$$

4-methoxyphenylazobenzene-4-carboxy ethyl triethoxysilane

FIG. 1E

4-ethoxyphenylazobenzene-4-carboxy propyl triethoxysilane 36

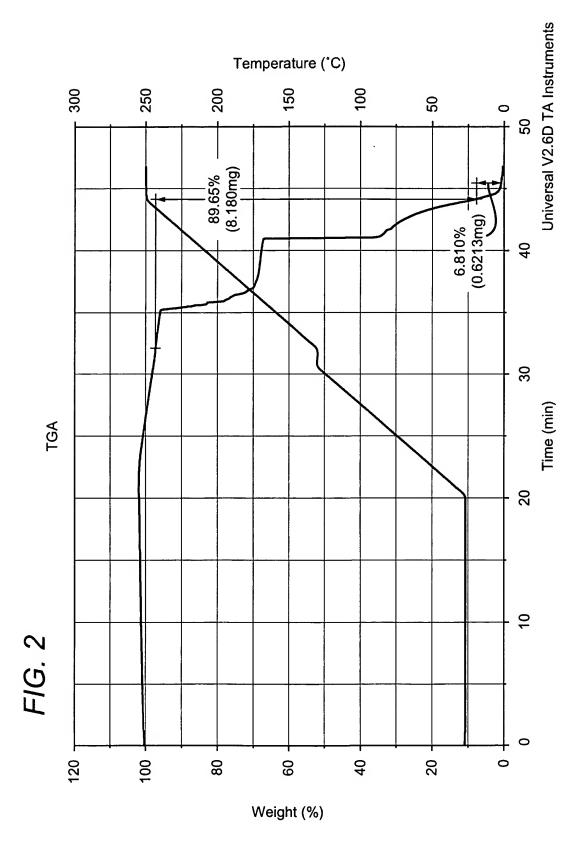
4butoxyphenylazobenzene-4-carboxy propyl triethoxysilane 37

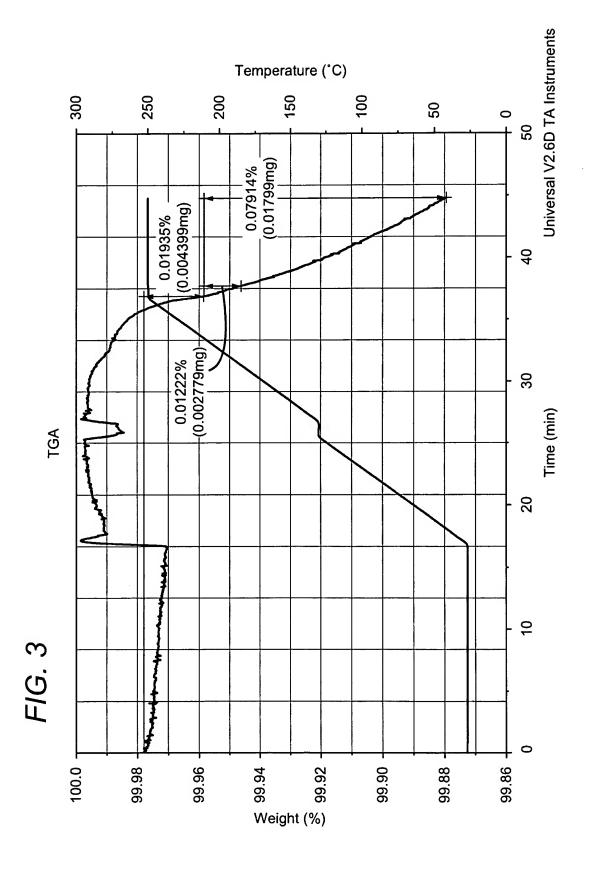
$$H_3CO \longrightarrow N=N \longrightarrow C-O(CH_2)Si(OC_2H_4)_3$$

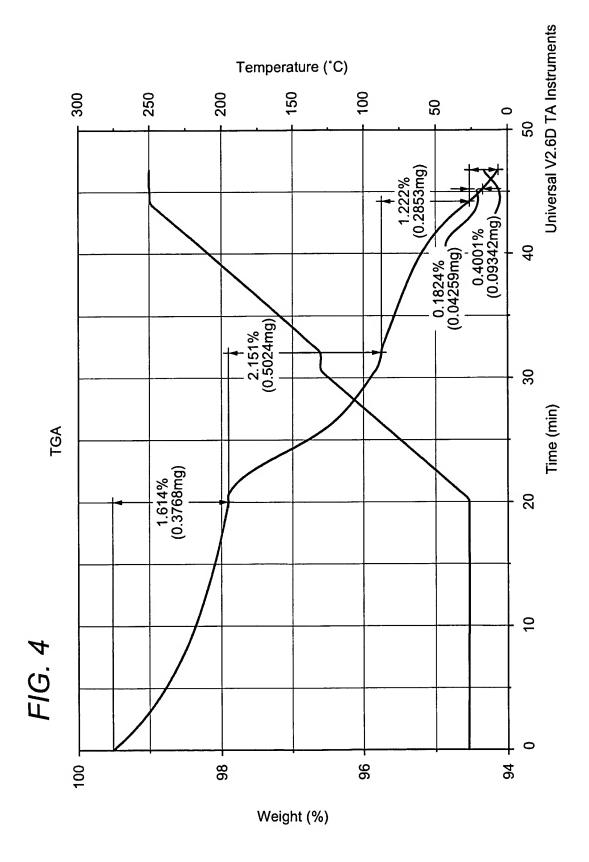
4-methoxyphenylazobenzene-4-carboxy methyl triethoxysilane 38

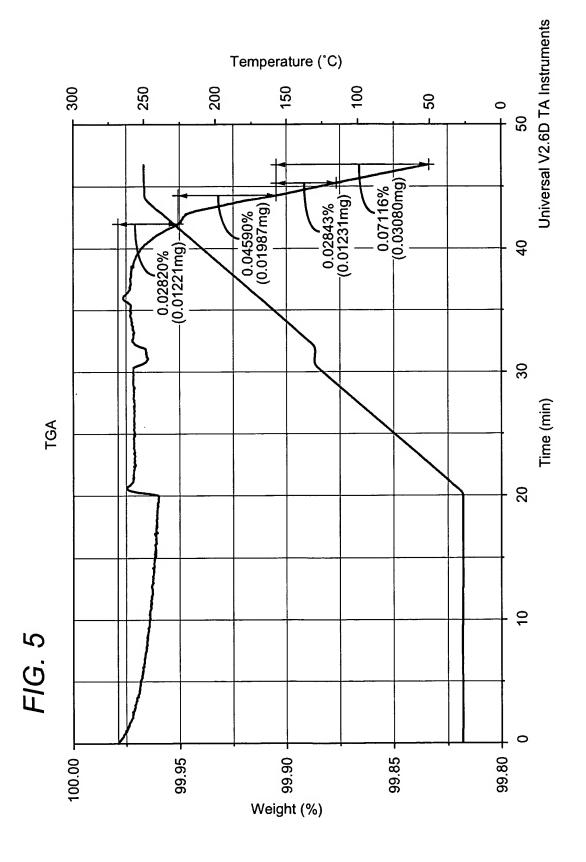
4-ethoxyphenylazobenzene-4-carboxy methyl triethoxysilane 39

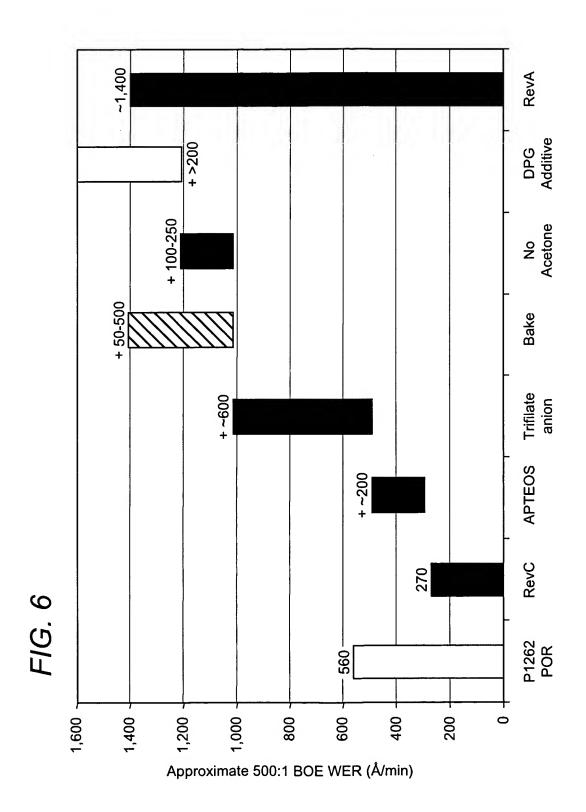
4-methoxyphenylazobenzene-4-carboxy ethyl triethoxysilane

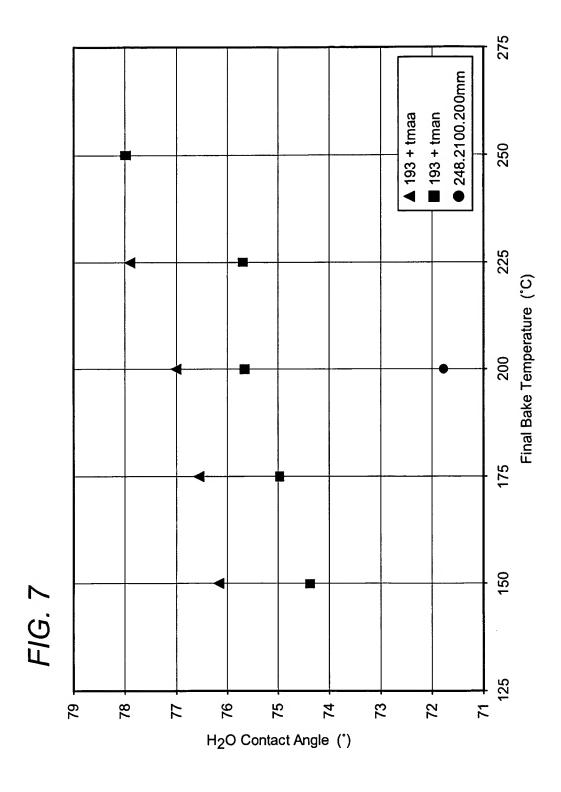


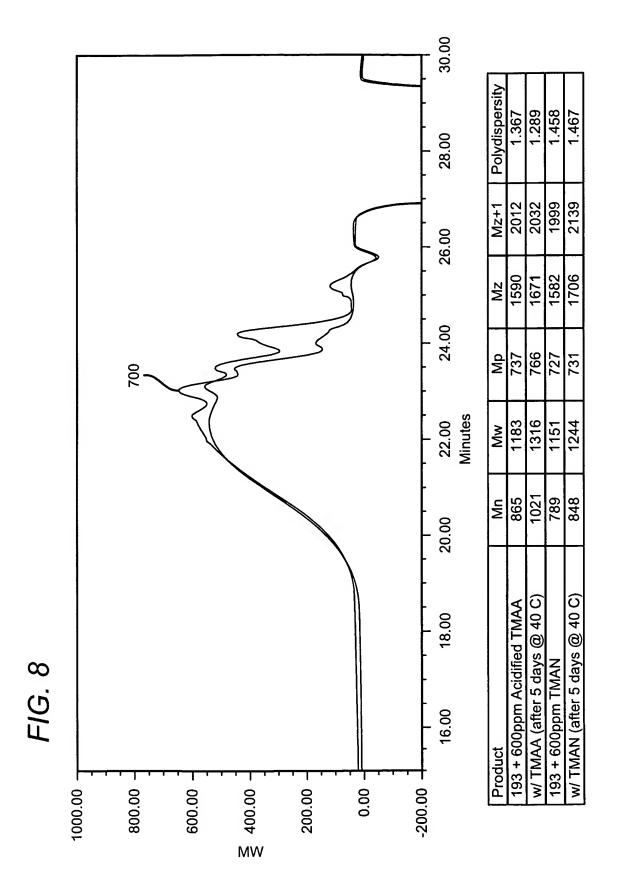


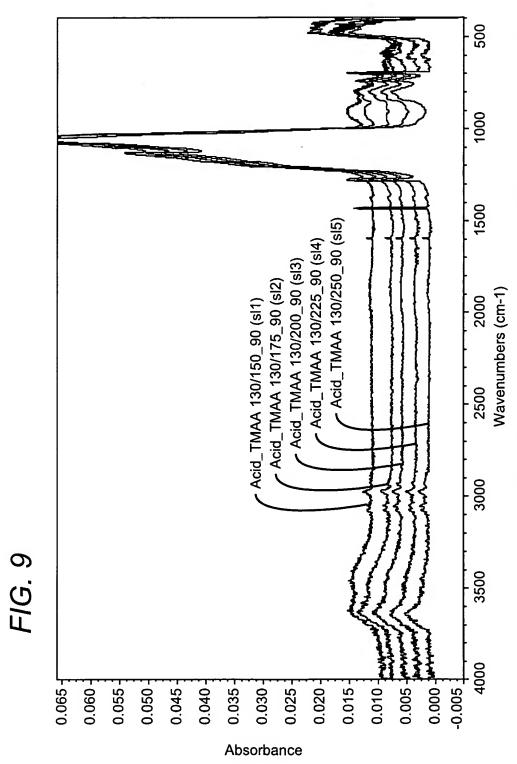




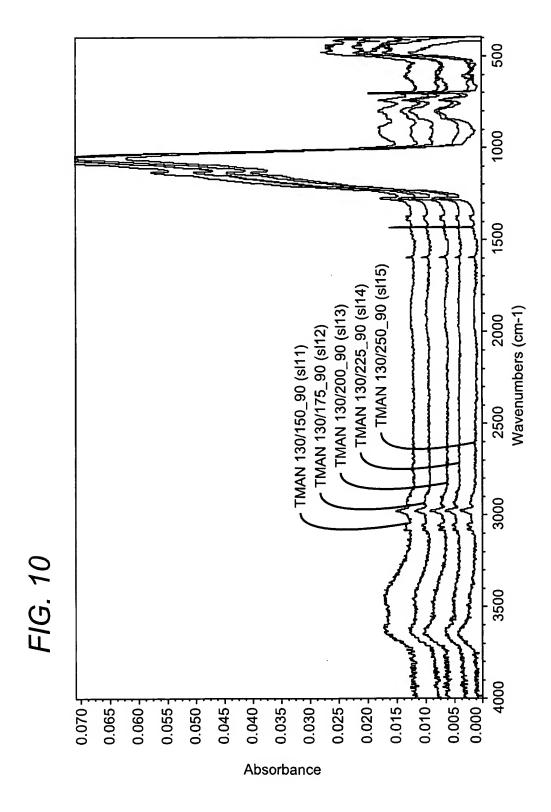


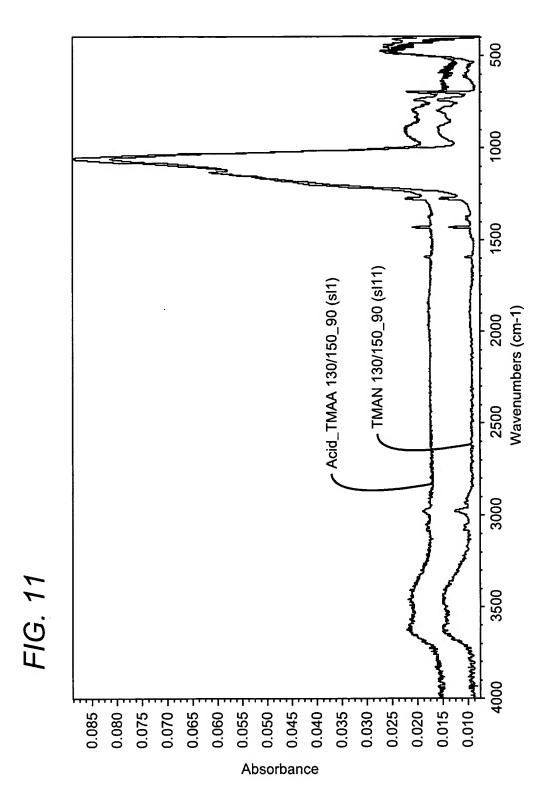


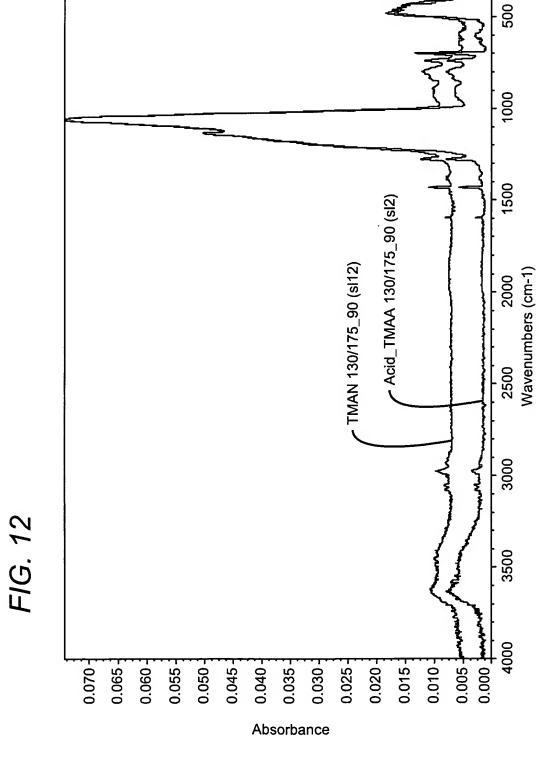


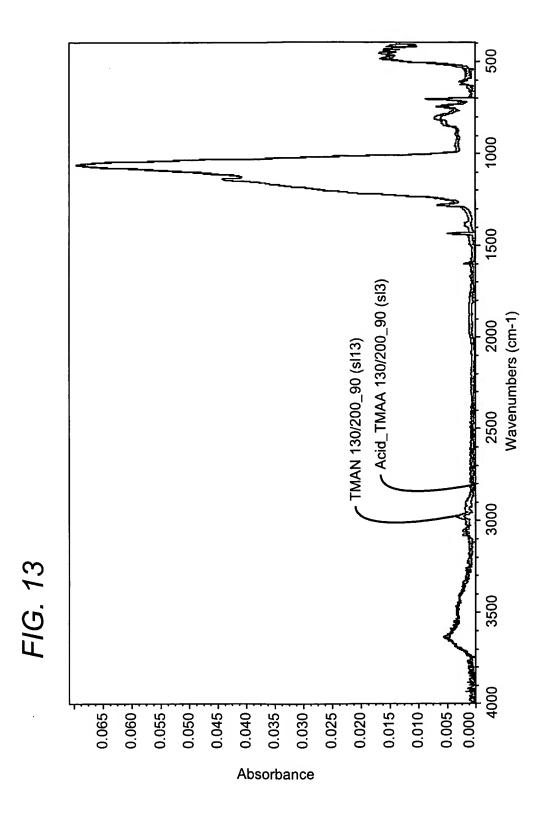


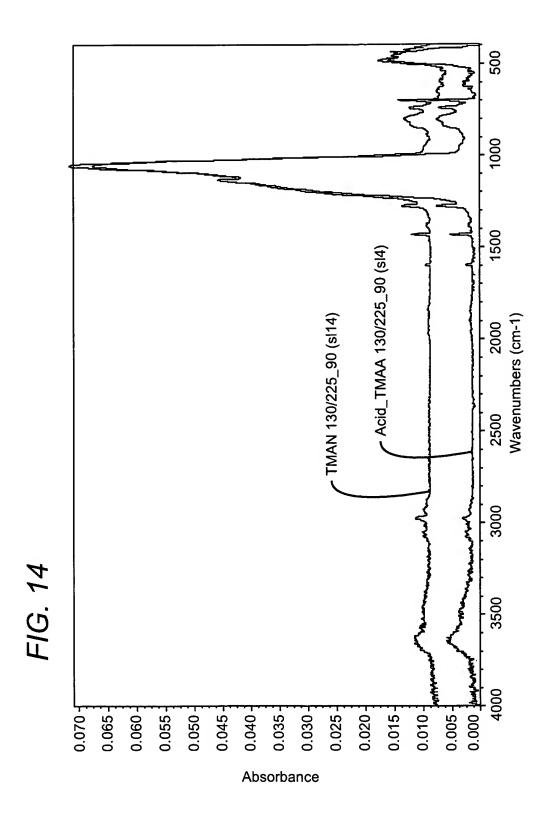
- Although water clearly present at 130/150 C bake, the WER is still quite low. SiOH is clearly present at 925 cm-1.

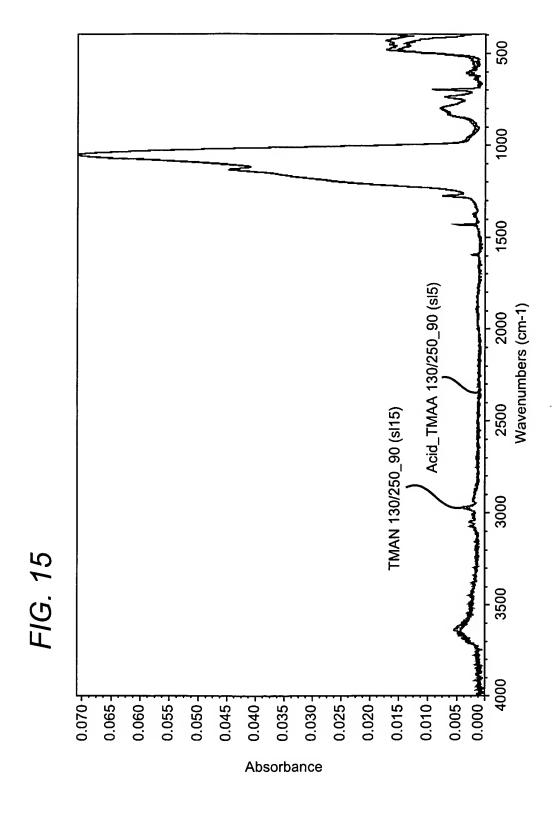


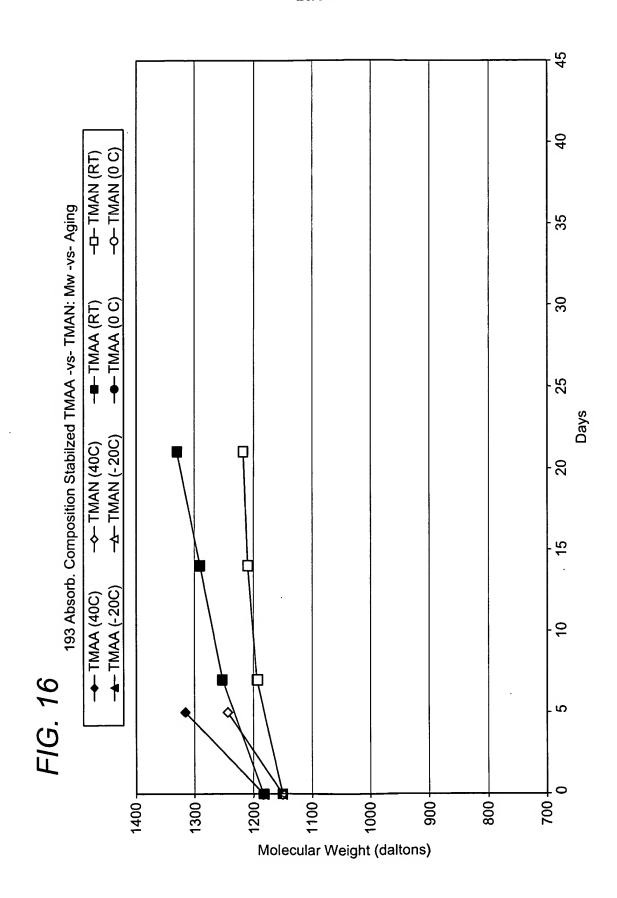


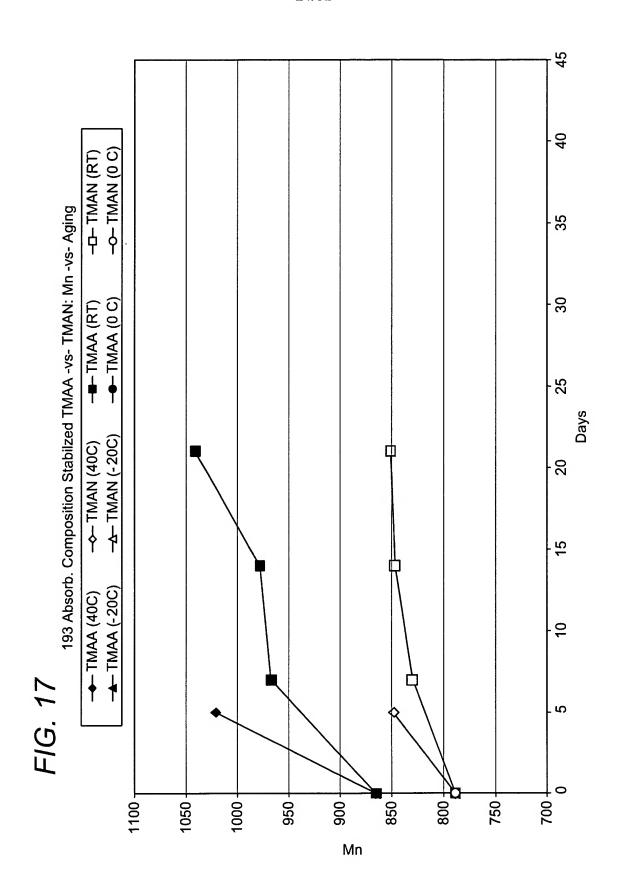


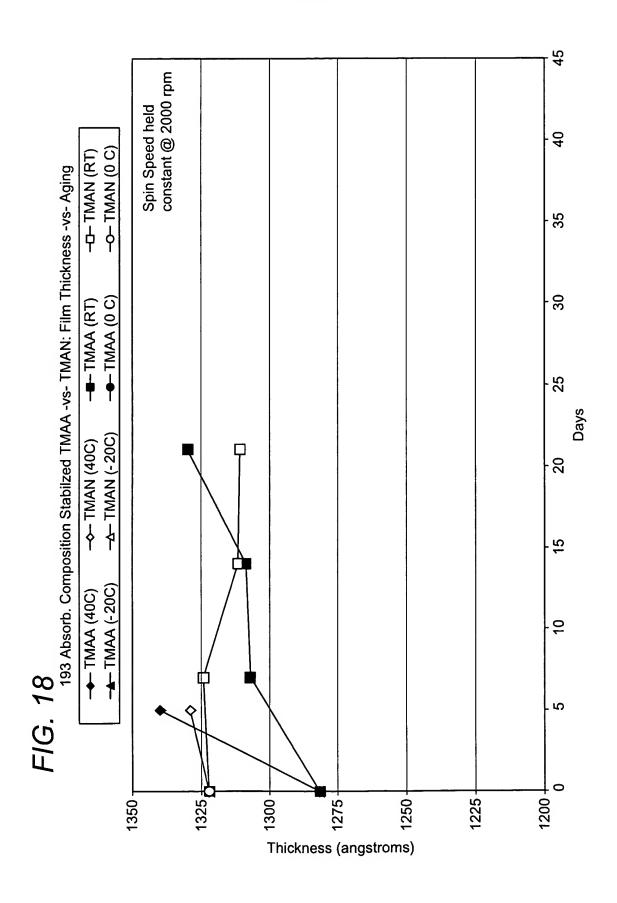


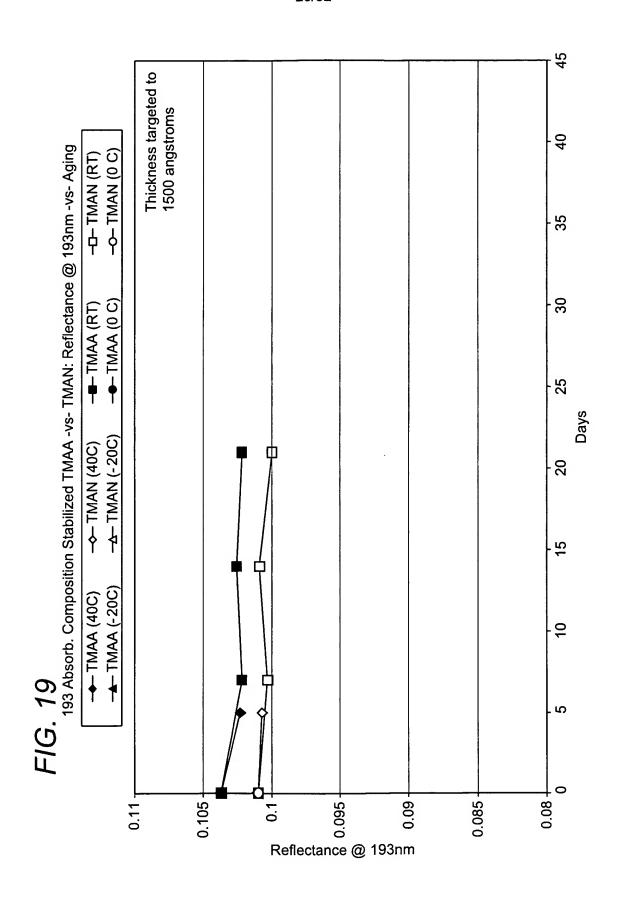


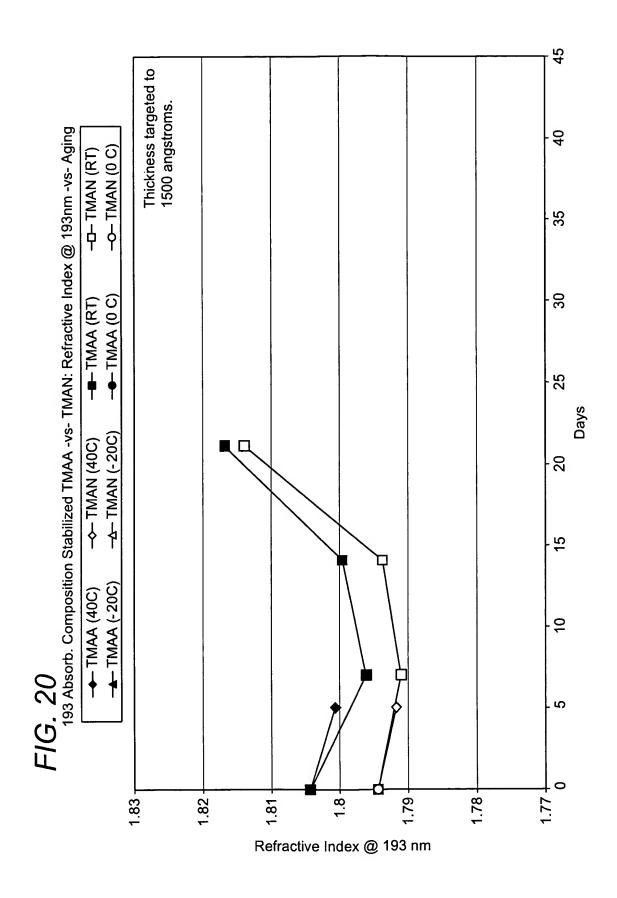


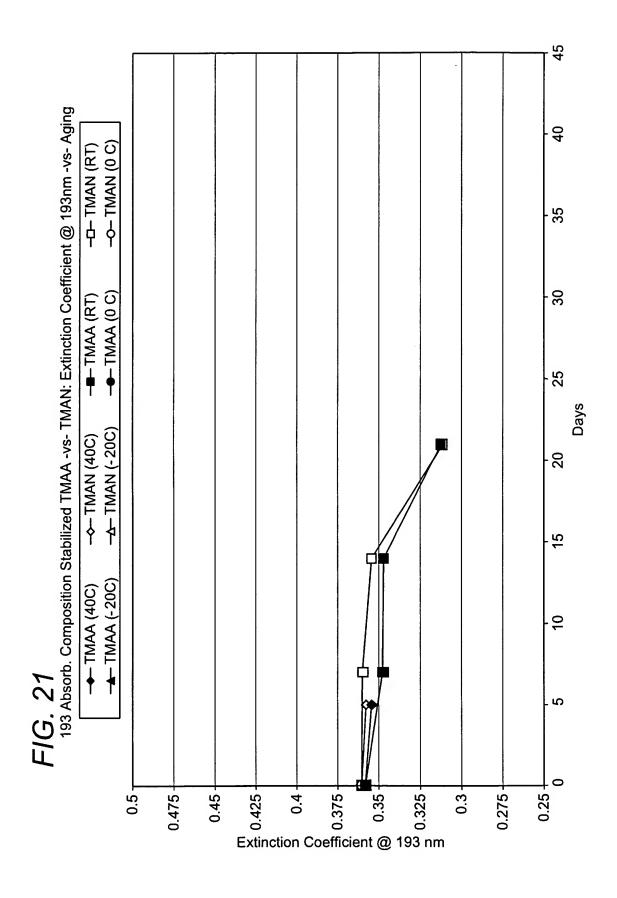


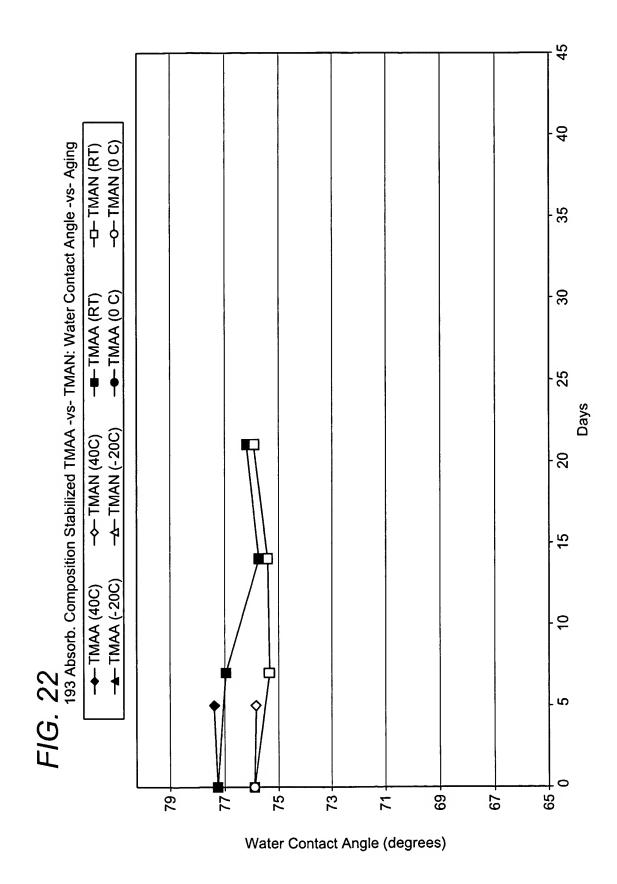


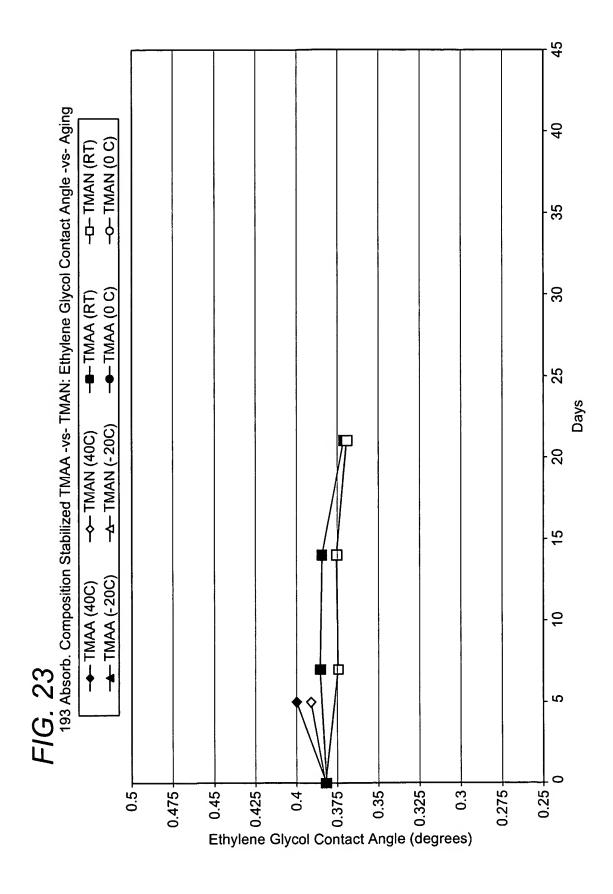


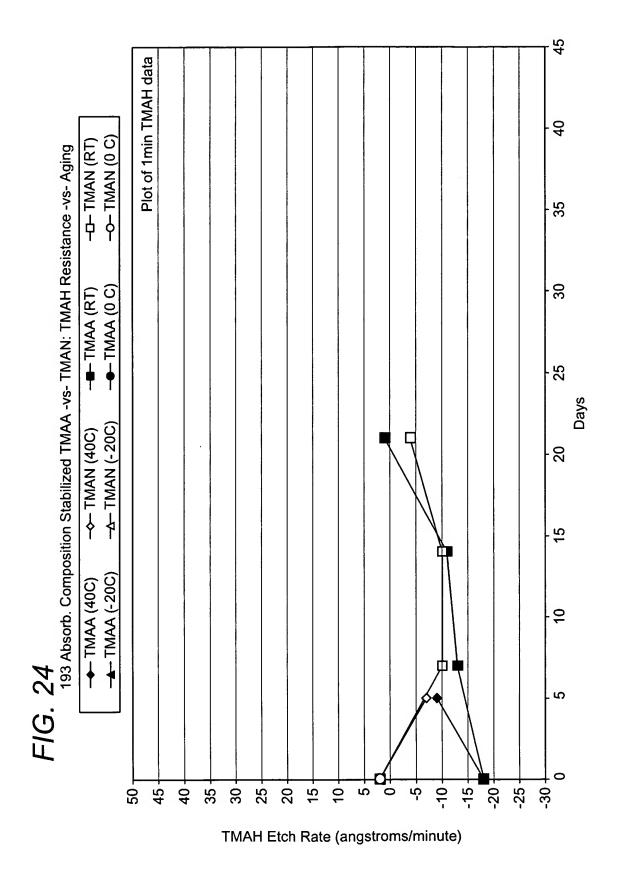


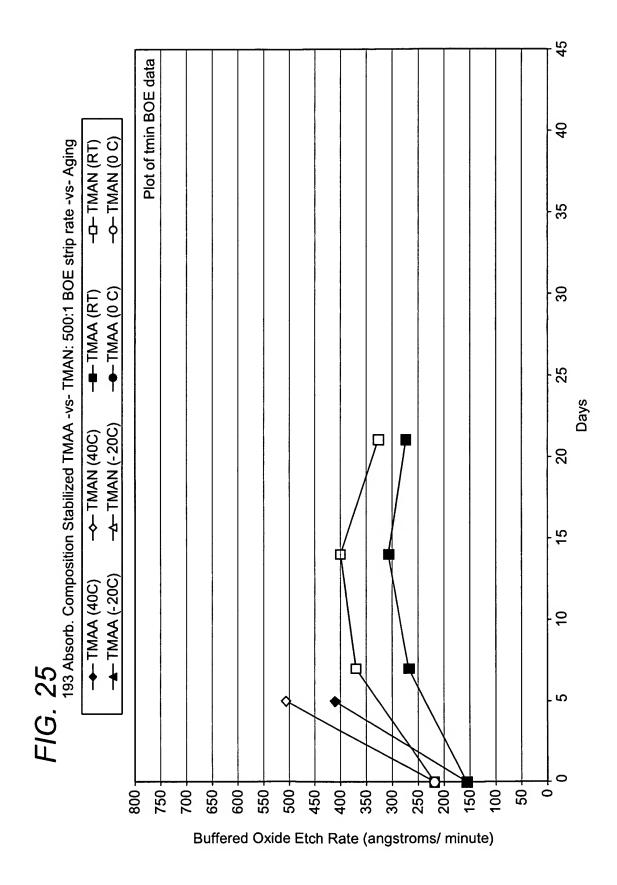






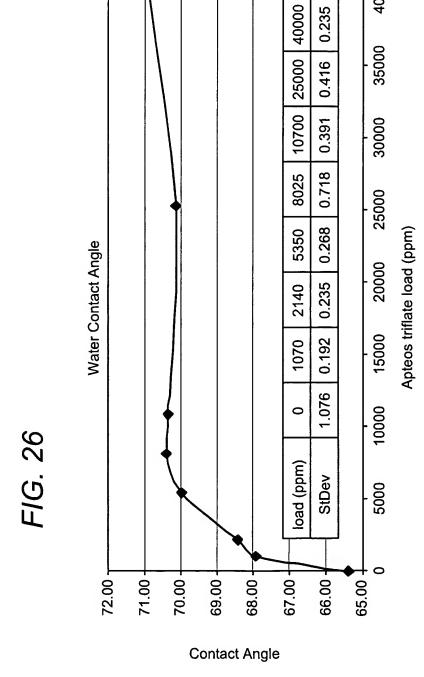






40000

0.235



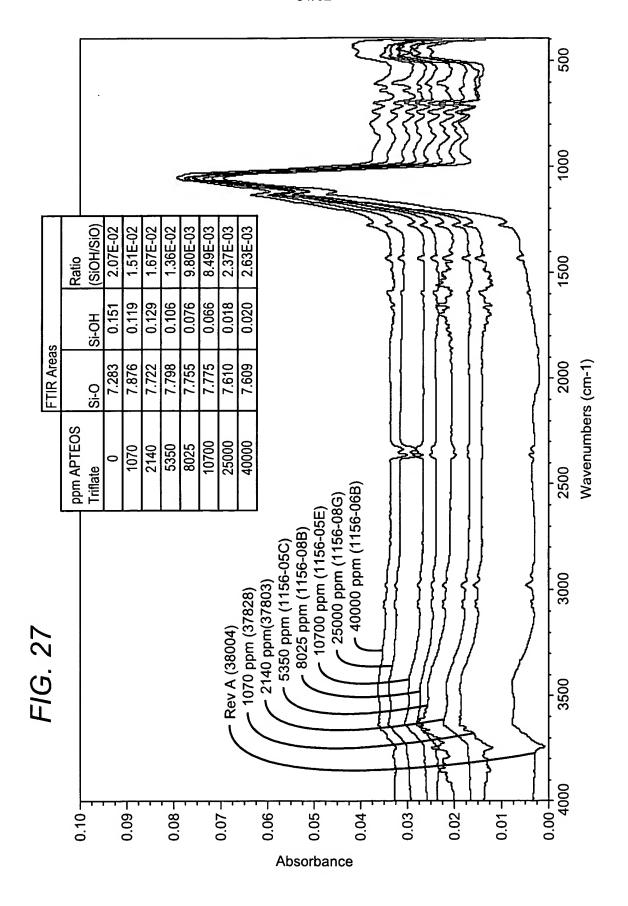


Table :

193	rbing	Comp. +383	MAH	ate	DPG	40°C		[1116]	[1069]		ER	44	3516 >3516	3588 >3588	129	3519 >3519	3503 >3503	1240	3483 > 3483	>3532
15	Absorbing	Comp.	ppm TMAH	triflate	+3% DPG	130/240°C					Pre	3543	3516	3588	3563	3519	3503	3469	3483	3532
193	rbing	+ .d	mdd	EOS	ate	130/240°C		933	[1030]	854	ER	တ	-14	143	39	93	202	45	100	3543 1443 3532 > 3532
16	Absorbing	Comp. +	1070ppm	APTEOS	triflate	130/2					Pre	5698	2705	2692	2698	2752	2685	2700	2576	3543
193	rbing	р. +	383ppm	TMAH	ate	130/240°C		396	820		ER	8	g-	71	14	56	130	6	91	285
18	Absorbing	Comp. +	383	₽	triflate	130/2					Ыre	2676	2663	2677	2716	2673	2673	2672	2666	2653
193	Absorbing	ф. +	mda	TMAH	triflate	:00°C			TBD		ER	22	11	88	28	40	211	26	156	410
15	Abso	Comp. +	383ppm	Σ	trif	130/200°C	rch Lch				Pre	2670	2693	2694	2702	2688	2686	2691	2693	2731
193	rbing	πp.	ပ္	etone)	+ 5% DPG	130/200°C	90 sec each	411	531	236	ER	-12	9	71	8-	-11	120	ထု	11	275
1	Absorbing	Comp.	Rev C	(no acetone	+ 5%	130/2	90				Pre	2312	2331	2323	2311	2327	2361	2318	2327	2316
193	rbing	Comp.	Rev C			40°C		133	201		ER	<i>L</i> -	0	13	-15	-28	21	-31	40	364
13	Absorbing	වි	Re			130/240°C					Pre	2692	2701	2672	2693	2672	2725	2670	2679	2688
193	rbing	Comp.	Rev C			130/200°C		248	306		ER	-12	-19	36	-1	-10	53	-18	-12	102
13	Absorbing	S	Re			130/2					Pre	2691	2686	2720	2739	2702	2709	2702	2693	2709
193	Absorbing	Comp.	Rev A			130/200°C	:	2012	[1568]		ER	25	100	781	43	298	1212	166	716	2706 >2706 2709
15	Abso	<u>ਤ</u>	æ			130/2					Pre	2694	2663	2702	2679	2723	2699	2687	2670	2706
193	Absorbing	Comp.	POR			20.C			260		ER	2	2	117	-13	3	226	-5	78	222
16	Abso	<u> </u>	<u>~</u>			150/250°C	50 sec each				Pre	2731	429 2715	2720	2705	2774	2709	2670	2670	2670
248	Absorbing	Comp.				130/200°C	50 se	1224	1000	[880]	ER	20	429	3596 1795 2720	[398]	2102	3530 >3530 2709	3497 >3497 2670	3525 >3525 2670	3519 >3519 2670
77	Abso	<u> </u>				130/2					Pre	3529	3534	3596	3526 [398] 2705	3487 2102 2774	3530	3497	3525	3519
		tion of	5			0000	aoilen	30 sec	1 min	2 min	1 min @	23. C	20°C	75° C	23°C	20.C	22.C	23° C	20, C	2,5% 2,0%
		Decription					pake sednelice	500:4BOF	300:150E) 	TMAH	7000	2.3% aq.	LININI	- /80 L	5.0% aq.	LIKINI	40.00/	10.0% aq.	

Table 4

Absorbing Comp. Comp. Comp. Comp. Comp. Comp. Comp. Comp. ApTEOS APTEO			24	248	193	က	**	193	\	193	193	33	193	္က
Comp. Comp. Comp. Comp. Comp. Comp. H1070ppm H1070			Abso	rbing	Absor	bing	Abso	rbing	Abso	rbing	Absol	rbing	Absorbing	bing
HeVC			<u> </u>	Jp.	S	ď.	స్	mp.	Ö	πp.	ဝွ်	np.	Comp.	<u>ن</u>
APTEOS APTEOS APTEOS APTEOS APTEOS APTEOS APTEOS APTEOS APTEON Triflate tri	Descrip	tion			Rev	ပ	+107	Oppm	+107	Oppm	+1070)ppm	+1070ppm	mdd
triflate tri	-			_			APT	EOS	APT	EOS	APT	EOS	APTEOS	SOS
equence 50 sec 5							ij	ate	Ħ	ate	triff	ate	triflate	ate
Hequence 130/200°C 130/160°C 130/160°C 130/200°C 130/2 130													+ 1.5% DPG	DPG
equence 50 sec 130/200°C 130/160°C 130/160°C 130/200°C 130/2 1 min @ Pre	Hd		Ž	₹	V		ľ	_	Y	_	V	1	1>	
Humin @ Pre ER	200 0400		130/2	၁.00	130/1	၁.09	130/1	2.09	130/2	၁.00	130/2	40°C	130/200°C	၁.00
1 min @ Pre ER Pre Pre ER Pre Pre ER Pre Pre ER Pre Pre <th< td=""><td>bake age</td><td>aciica</td><td>20</td><td>sec</td><td></td><td></td><td></td><td></td><td>6</td><td>)s</td><td></td><td></td><td></td><td></td></th<>	bake age	aciica	20	sec					6)s				
20° C 3533 [873] 1676 268 2741 [1098] 2724 [1071] 2737 1 min @ Pre ER Pre ER Pre ER Pre 23° C 3527 75 1676 7 2720 -1 2729 -7 2713 50° C 3540 1565 1676 7 2722 -1 2729 -7 2713 50° C 3534 1480 1681 8 2701 16 2722 23 2702 50° C 3543 >3488 1676 12 2709 80 2717 58 2705 75° C 3543 >3488 1676 12 2709 80 2717 58 2705 75° C 3527 >3527 1687 45 2715 272 271 36 271 75° C 3539 >3477 1690 11 2736 279 279 279	500:1	1 min @	Pre	ER	Pre	ER	Pre	ER	Pre	ER	Pre	ER	Pre	ER
1 min @ Pre ER Pre ER Pre ER Pre ER Pre ER Pre	BOE	20. C	3533		1676	268	2741	[1098]	2724	[1071]	2737	[1026]	3211	[1532]
23°C 3527 75 1690 0 2720 5 2747 28 2710 50°C 3524 572 1676 7 2722 -1 2729 -7 2713 75°C 3540 1565 1676 28 2743 127 2743 97 2692 23°C 3534 [480] 1681 8 2701 16 2722 23 2702 50°C 3543 >3488 1676 12 2709 80 2717 58 2705 75°C 3527 >3527 1687 45 2715 272 2713 192 2671 23°C 3539 >3477 1690 11 2734 39 2741 36 2716 50°C 3532 >3532 1674 109 2701 515 273 2734 75°C 3533 5333 1674 109 2701 517 273 273<	TMAH	1 min @	Pre	ER	Pre	ER	Pre	ER	Pre	ER	Pre	ER	Pre	ER
50° C 3524 572 1676 7 2722 -1 2729 -7 2713 75° C 3540 1565 1676 28 2743 127 2743 97 2692 23° C 3534 [480] 1681 8 2701 16 2722 23 2702 50° C 3543 >3488 1676 12 2709 80 2717 58 2705 75° C 3527 >3527 1687 45 2715 272 2713 192 2671 23° C 3539 >3477 1690 11 2734 39 2741 36 2716 50° C 3532 >3532 1682 17 2736 259 2749 2731 75° C 3532 >3532 1674 109 2701 515 2726 518	7000	23° C	3527	75	1690	0	2720	5	2747	28	2710	29	3172	51
75° C 3540 1565 1676 28 2743 127 2743 97 2692 23° C 3534 [480] 1681 8 2701 16 2722 23 2702 50° C 3543 >3488 1676 12 2709 80 2717 58 2705 75° C 3527 >3527 1687 45 2715 272 2713 192 2671 23° C 3539 >3477 1690 11 2734 39 2741 36 2716 50° C 3532 >3532 1672 17 2736 259 2749 2731 75° C 3533 >3533 1674 109 2701 515 2776 518 2731	2.3% aq.	20, C	3524	572	1676	7	2722	-1	2729	-7	2713	-11	3199	[2093]
23°C 3534 [480] 1681 8 2701 16 2722 23 2702 50°C 3543 >3488 1676 12 2709 80 2717 58 2705 75°C 3527 >3527 1687 45 2715 272 2713 192 2671 23°C 3539 >3477 1690 11 2734 39 2741 36 2716 50°C 3532 >3532 1674 109 2701 515 2726 518 2731 75°C 3533 >3532 1674 109 2701 515 2726 518 2731		22. C	3540		1676	28	2743		2743	97	2692	61	3188 >3181	>3181
50°C 3543 >3488 1676 12 2709 80 2717 58 2705 75°C 3527 >3527 1687 45 2715 272 2713 192 2671 23°C 3539 >3477 1690 11 2734 39 2741 36 2716 50°C 3532 >3532 1674 17 2736 259 2749 224 2731 75°C 3533 3532 1674 109 2701 545 2726 548 2734	700	23. C	3534	[480]	1681	8	2701	16	2722	23	2702	16	3179	[539]
75° C 3527 >3527 1687 45 2715 272 2713 192 2671 23° C 3539 >3477 1690 11 2734 39 2741 36 2716 50° C 3532 >3532 1682 17 2736 259 2749 224 2731 75° C 3533 >3533 1674 109 2701 515 2726 518 2731	5.0% aq.	20°C	3543	>3488		12	2709		2717	58	2705	38	3183 >3183	>3183
23°C 3539 >3477 1690 11 2734 39 2741 36 2716 50°C 3532 >3532 1682 17 2736 259 2749 224 2731 75°C 3533 >3533 1674 109 2701 515 2726 518 2731	IV.	75. C	3527	>3527	1687	45	2715	272	2713	192	2671	150	3166	>3166
50°C 3532 >3532 1682 17 2736 259 2749 224 2731	7000	23. C	3539	>3477		11	2734	39	2741	36	2716	54	3201	[1942]
75° C 3533 53533 1674 109 2701 515 2726 518 2731	10.0% aq.	20. C	3532	>3532		17	2736	259	2749		2731	168	3173 >3173	>3173
1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1		75. C	3533	>3533	1674	109	2701	515	2726	518	2731	394	3186 >3186	>3186

Table 5

			_			רי		0	<u> </u>	~	<u>[6</u>	~		-	24	—	2	23	رت	64	92
193	Absorbing	Comp.	+170ppm	oniu	triflate	+ 3% DPG	 ⊽	130/240°C		띪	[1459]	ER	30	421	>2854	54	1407	>2953	455	×29	>29
	Absc	ය	+17	Ammonium	這	+ 3%	ľ	130/		Pre	2982	Pre	2972	2960	2662	2952	2943	2953	2949	2949 >2949	2992
193	rbing	щ. -	mdd	nium	triflate	+ 3% DPG	1	130/200°C		ER	[1514]	ER	38	655	2977 >2977	223	[2060] 2943	2973 >2973	1014	2983 >2983	2986 >2986 2992 >2992
13	Absorbing	Comp.	+170ppm	Ammonium	triff	+ 3%	₹	130/2		Pre	2971	Pre	2951	2997	2977	2972	2983	2973	2979	2983	2986
193	rbing	np.	mdd	ninu	ate			130/200°C		ER	[1113]	ER	19	9/	325	33	254	558	124	619	991
15	Absorbing	Comp.	+170ppm	Ammonium	triflate		\	130/2		Pre	2751	Pre	2732	2746	2736	2744	2725	2750	2702	2761	2766
193	rbing	np.	mdd(EOS	triflate	DPG		130/240°C	80s	ER	[1065]	ER	29	>3529	3519 >3519	[482]	3479 >3479	>3487	1748	3496 >3496	3187 >3187 3534 >3534 3500 >3477 2766
15	Absorbing	Comp.	+1070ppm	APTEOS	triff	+ 3% DPG	⊽	130/2		Pre	3548	Pre	3564	3529		3519 [482]		3487	3496	3496	3500
13	rbing	np.) mdd(triflate	trifiate + 3% DPG	_	130/200°C		ER	[1176]	ER	83	>3510	3505 >3505	3533 [1125]	3505 >3505	>3495	3563 [3203]	3504 >3504	>3534
193	Absorbing	Comp.	+1070ppm	APTEOS	triff	+ 3%	7	130/2		Pre	3507	Pre	3523	3510	3505	3533		3495	3563	3504	3534
193	rbing	np.	_ mdd(EOS	triflate	, DPG	1	130/240°C		ER	[1432]	ER	123	1163	3203 >3202	102	3175 >3175	3165 >3165	3200 [592]	3176 >3176	>3187
16	Absorbing	Comp.	+1070ppm	APTEOS	triff	+ 1.5% DPG	√	130/2		Pre	3214	Pre	3218	3184	3203	3194	3175	3165	3200	3176	3187
			tion					0000	מונים	1 min @	20°C	1 min @	23. C	20°C	75. C	23. C	20°C	75° C	23. C	20°C	75° C
			Description				Hd	100 0/0G	pave Sequelice	500:1	BOE	TMAH	2 30/ 02	2.3% aq.		C 00'	5.0% aq.	I Civi	40.00	10.0% aq.	

Table 6

248	193		193	3	193	3	193	3	15	193	193	3
Absorbing Abs	Sort	Absorbing	Absorbing	i guid	Absorbing	bing	Absorbing	bing	Abso	Absorbing	Absorbing	bing
Comp. Comp.	Ē	ے	Comp.		Comp.	وز	Comp.	np.	Comp.	np.	Comp.	Ğ.
+1070ppm	$\stackrel{\leftarrow}{\sim}$	mdc	+1070ppm	bpm !	+1070ppm	mdd	+1070ppm	mdd(+1070ppm	_ mddc	+1070ppm	mdd
APTEOS		So	APTEOS	; ; ;	"optimized"	ized"	"optimized"	ized"	"optimized	ized"	"optimized	"pəz
triflate	~	بو	triflate	ate '	APTEOS	SO	APTEOS	SS	APTEOS	EOS	APTEOS	SO
+ 0.5% DPG	_		+ 1.5% DPG	DPG ;	triflate	<u>e</u>	triflate	ate	Ę	triflate	triflate	<u>t</u> e
				. I .	+ 0.25%	0.25% DPG	+ 0.5% DPG	DPG	+ 1%	+ 1% DPG	+ 1.5%	1.5% DPG
<1			\	-	<2	7	<2	5	V	<2	<2	
130/200°C 130/200°C	0	0.C	130/200°C	່ ວ.00	130/200°C	⊃ .00	130/200°C	၁.00	130/2	130/200°C	130/200°C	၁.၀
50 sec		oes 06	၁ခ					oes 06	oe:			
ER Pre		ER	Pre	ER !	Pre	ER	Pre	ER	Pre	ER	Pre	ER
[977] 2869 [[1409]	3177	[1601]; 2879	_	[1512]	2902	[1602]	2907	[1607]	2947	[1850]
ER Pre		ER	Pre	ER .	Pre	ER	Pre	ER	Pre	ER	Pre	ER
127 2874		18	3190	16	2854	28	2934	42	2957	22	2960	54
723 2886		94	3190	1806 2893	2893	279	2887	447	2955	262	2958	735
1987 2875		861	3203	>3203, 2864		[1519]	2885	2885 >2979	2987	>2987	2984	>2984
[812] 2893		17	3182	93	2853	55	2898	96	2927	158	3038	258
>3520 2857		356	3189	>3189, 2844	2844	739	2910	1095	2932	[1969]	2973	[2916]
>3506 2858		[1660]	3184	>3184, 2850 >2771	2850	>2771	2926	2926 >2926	2926	2926 >2926	3006 >3006	>3006
3499 >3499 2877	1	163	3187	2803 2871	2871	715	2967	2967 [1362]	2977	2977 [2258]	2992	1991
>3522 2848		1196	3215	3215 >3215, 2899	2899	>2899	2906	>2903	2942	2942 >2942	2958 >2958	>2958
3542 >3542 2851 >2851			3186	3186 >3186; 2885 >2885 2897 >2987 2991 >2991	2885	>2885	2897	>2987	2991		2976 >2976	>2976

Table 7

193		_	S APTEOS	- MSA	+ 1.5% DPG	<2	°C 130/200°C	90 sec	ER Pre ER	935 2839 1086	ER Pre ER	19 2834 26	23 2831 48	209 2812 507	36 2868 23	45 2871 115	283 2848 695	34 2811 26	610 2863 387	589 2847 [1515]
193 Absorbing	Comp.	+1070pm	APTEOS	- MSA		\$	130/200°C		Pre	2768 9	Pre E	2777	2765 2	2794 2	2821	2763 4	2804 2	2806	2792	849 : 2777 5
193 Absorbing	Comp.	+383ppm	TMAH - MSA;	, DPG ,		8	130/200°C		ER	895	ER	40	18	293	23	34	457	29	840	
Abs.	ဒ	+38	TMA	+ 1.5%			130/	90 sec	Pre	2816	Pre	2828	2810	2848	2811	2852	2824	2827	2790	2793
193 Absorbing	Comp.	+383ppm	TMAH - MSA			8	130/200°C	8	ER	723	ER	40	12	123	1	22	167	10	81	441
15 Abso	Š	+383	TMAH			\ <u>'</u>	130/2		Pre	2823	Pre	2812	2769	1132 ¦ 2755	2773	2797	1827 ; 2779	223 2770	1533 2843	2799
193 Absorbing	Comp.	+170ppm	ammonium	triflate ,	+ 1% DPG	8	130/200°C		ER	[1283]; 2823	ER	54	201	1132	8	464	1827			1100 2846 [1696] 2878 [2878] 2799
Absc	රි	+17(amm triff + 1%			ľ	130/		Pre	2931	Pre	2924	2891	2897	2883	2903	2937	2885	2914	2878
193 Absorbina	Comp.	Comp. +170ppm ammonium triflate + 0.5% DPG			+ 0.5% DPG	\$	130/200°C	90 sec	띪	[1149]	ER	[1149]	120	829	27	278	278	138	775	[1696]
16 Abso	වී	+17(amm	Į		ľ	130/2	90	Pre	2830	Ьrе	2821	2835	2854	2841	2871	2843	2840	2818	2846
193 Absorbing	Comp.	+170ppm	ammonium	triflate	+ 0.25% DPG	\$	130/200°C		ER	[1102]	ER	23	86	415	29	206	286	102	909	
1t Abso	ਠੌ	+170	ammo	trif	+ 0.25	ľ	130/2		Pre	2804	Pre	2786	2827	2762	2777	2785	2809	2785	2782	2781
		tion					0000	2012	1 min @	20°C	1 min @	23. C	20°C	J. SZ	23. C	20°C	75° C	23. C	20°C	2. C
		Description				玉	Dolo Coa	Dake Sequence	500:1	BOE	TMAH	20 /00 0	2.5% aq.		700 1	5.0% aq.	T CIM	10.00/ 22	10.0% aq.	<u> </u>

		1,	193	193	3	193	33	193	3	193	13	193	3	193	3
		Abso	Absorbing	Absorbing	rbing	Absorbing	rbing	Absorbing	bing .	Absorbing	rbing	Absorbing	rbing !	Absorbing	bing
		<u> </u>	Comp.	Comp.	<u>.</u> ф	Comp.	np.	Comp.	- ښ	Comp.	пр.	Comp.	ā.	Comp.	<u>ن</u>
Description	tion	+214	+2140ppm	+2140ppm	mdd(+170ppm	mdd	+170ppm	- mdd	+225ppm	mdd	+225ppm	- mdd	+340ppm	mdd
		"optimized"	nized"	"optimized"	ized" ¦	"optimized"	nized"	"optimized"	ized" ,	"optimized"	lized"	"optimized"	ized" ¦	"optimized"	ized"
		APT	APTE0S	APTEOS	=0s	Ammonium	uniuc	Ammonium	nium	Ammonium	minu	Ammonium	nium '	Ammonium	nium
		trifla	triflate +	triflate +	te +	triflate +	te +	triflate +	 	triflate +	te +	triflate +	te +	triflate +	+ +
		0.16%	0.16% DPG	0.25% DPG	DPG	0.75% DPG	DPG (1% DPG	PG i	0.75% DPG	DPG	1% DPG)PG	1% DPG	PG
Hd		_	<2	<2	2		<2	<2	2	\$	2	V	\$	<2	
Boko Sogilopeo	00001	130/2	130/200°C	130/200°C	j 0.00	130/2	130/200°C	130/200°C	j 0.00	130/2	130/200°C	130/200°C	၁.00	130/200°C	၁.00
המאם ספק	מפונים		oes 06	ec 3ec			90 sec	360			oes 06	၁၅		90 sec	ည္တ
500:1	1 min @	Pre	ER	Pre	R	Pre	ER	Pre	띪	Pre	띪	Pre	띪	Pre	꼾
BOE	20. C	2970	[1527]	2933	[1486], 2933	2933	[1313]	2696	[1130], 2902	2902	[1272]	2938	[1314]; 2970	\vdash	[1396]
TMAH	1 min @	Pre	ER	Pre	ER	Pre	ER	Pre	ER !	Pre	ER	Pre	ER	Pre	ER
2 20/ 02	23°C	2995	8/	2962	92	2905	02	2913	64	2920	11	2935	88	2949	63
7.3% dq.	20.C	2965	248	2947	195	195 2929	171	2929	211	211 ; 2908	167	2932	220 2951	2951	215
- CIAI	J.2L	2970	[1608]	2946	1166 2914	2914	1035	2959	1341 ! 2941	2941	1077	2962	1369 , 2998	2998	1565
E 00/ 52	23. C	2959	137	2932	103	2905	28	2924	06	2936	91	2929	133	2960	105
5.0% ad.	D .09	2968	591	2942	462	2915	405	2914	486	2923	412	2980	267	2991	548
CM	J.£.	2943	[2608]	2983	1565	1565 2948	1398	2932	[2138] 2945	2945	[1664]	2940	[2166] 2974		>2974
40.00/.00	23. C	2982	186	2937	147	147 2915	66	2944	124	124 , 2919	124	2962	117	117 2989	189
10.0% aq.	20°C	3012	1616	2950	1187	1187 2934	1028	2978	1274	1274 2909	1170	2908	1253 ; 3008	3008	1476
I WIN I	75° C	1966	1966 >2966	2971	2971 >2971, 2879		[2878] 2923	2923	2923	2932	>2932	2937	>2937	2923 2932 >2932 2937 >2937 2972 >2972	>2972

		24	248	193	₂	193	္ဌ	193	ြည	193	ည 	193	3	193	3	193	[
		Absorbing	rbing	Absorbing	bing	Absorbing	bing	Absorbing	bing	Absorbing	bing	Absorbing	rbing	Absorbing	bing	Absorbing	bing
		Comp.	. du	Comp.	đ.	Comp.	пр.	Comp.	np.	Comp.	пр. -	Comp.	np.	Comp.	٦p.	Comp.	 <u>-</u>
Description	tion			+1070ppm	mdd	+1070ppm	mdd(+1070ppm	mdd(+1070ppm	, mdd(+1600ppm) mdd(+1600ppm	_ mdd(+1600ppm	bpm -
				"optimized	ized"	"optimized	ized"	"optimized"	ized"	"optimized	ized"	"optimized	ized"	"optimized"	ized"	"optimized	zed"
				APTEOS	SOS	APTEOS	<u>=08</u>	APTEOS	- SO:	APTEOS	- SOE	APTEOS	=0S	APTEOS	SOE	APTEOS	SO
				triflate +	.	triflate +	te +	triflate +	te +	triflate +	te +	triflate +	te +	triflate +	+ +	triflate +	+ 0
i				0% DPG	PG	0.08% DPG	DPG	0.16% DPG	DPG	0.25%	.25% DPG	0.08% DPG	DPG	0.16% DPG	DPG	0.25% DPG	DPG
Hd		V	<2	<2	~	<2	5	<2	2	<2	2	V	<2	<2	7	<2	-
Boko Cogilonco	0000	130/200	C.00.	130/200°C	၁.00	130/200°C	၁.00	130/200°C	၁.00	130/200°C	0.00	130/200°C	၁.00	130/200°C	00°C	130/200°C	ے 0.00
Dane Sey	מפווכם	20	50 sec				oes 06	၁ခ						90 sec	sec		
500:1	1 min @	Pre	ER !	Pre	ER	Pre	ER	Pre	ER	Pre	띪	Pre	ER	Pre	ER	Pre	ER
BOE	20°C	3565	=	013], 2887	[1354]	2900	[1356]	2942	[1467]	2974	[1450]; 2884	2884	[1351]	2910	[1450]	2984	[1565]
TMAH	1 min @	Pre	ER !	. Pre	ER	Pre	ER	Pre	ER	Pre	ER .	, Pre	ER	Pre	ER	Pre	ER
20 /00 0	23. C	3544	134	134 ; 2866	72	2885	73	2921	72	2956	87	, 2919	79	5303	77	2944	33
2.3% aq.	20°C	3561	803	803 ; 2858	105	2894	142	2952	175	2933	242 ; 2906	2906	166	2984	249	2960	266
	75° C	3598	3598 [2559], 2902	2902	622	2925	833	2916	1191	2982	1506 2885	2885	893	2925	1089	2987	[1854]
2000	23. C	3559	3559 >3530, 2861	2861	81	2901	101	2930	91	2941	100	2875	79	2904	85	2966	137
5.0% aq.	ວ .09	3539	>3539, 2848	2848	256	2874	339	2902	456	2970	288	2917	410	2931	487	2987	640
Z N	22°. C	3565	3565 >3563, 2893	2893	789	2912	1124	2941	1612	2927	[2504] 2907	2907	1198	2952	[1672]	2981	[2920]
40.00/.00	23°C	3563	3563 >2563, 2850	2850	93	2892	132	2917	156	2956	226 2865	2865	115	2947	158	2960	222
10.0% dq.	20°C	3580	3580 >3580, 2892	2892	704	2870	851	2936	1211	2977	1548 2894	2894	934	2918	1186	2950	1771
I CIAI :	75° C	3545 >		3545; 2893 [[1493] 2886 [[2142] 2914 [[2914] 2939 >2939; 2879 [[2267] 2967 >2967 2960 >2960	[1493]	2886	[2142]	2914	[2914]	2939	>2939	2879	[2267]	2967	>2967	2960	×2960

Table 10

193	Absorbing	Comp.	+ 1070ppm	APTEOS	tosylate	+ 5% DPG	>	130/240C 90sec	ER (A/min)		9	///X664X	111/2/2012	\\\>¢s\$<\\\\
193	Absorbing	Comp.	+ 1070ppm	APTEOS	tosylate	+ 5% DPG	>	130/200C 90sec	ER (A/min)	()	(*) (*)	11/1/2002/	11118088811111	\\\9€9€\\\
193	Absorbing	Comp.	+ 1070ppm	APTEOS	tosylate		\	130/240C 90sec	ER (A/min)			(psol)	978	×689
193	Absorbing	Comp.	+ 1070ppm	APTEOS	tosylate		\	130/200C 90sec	ER (A/min)			(/////\$\$\$\$//////	[[][\$\text{\$\tex{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
248	Absorbing	Comp.					1.5	150/250C 50sec	ER (A/min)		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	(()()()\$\$\$\$()()()	1111/0008/111/1	(1880)
			tions				H	3)/Time (Sec.)	Metrics	1 min	2 min	30 sec	1 min	2 min
			Descriptions	•			Hd	Bake temp. (C)/Time (Sec.	Met	2.5% TMAH	@ 21.C		300.1BUE	2 - 2

Etch Rate (A/min); P.e. B. B.

Pre-Immersion SOG Film Average Thickness in Angstrom; ER > 1000A/min ER < 1000A/min

Bare Si post-etch Post-etch film is highly non-uniformed.

Table 11

		248	193	193
		Absorbing	Absorbing	Absorbing
		Comp.	Comp. Rev A	Comp. Rev A
Descrip	tions	-	+ 383ppm	+ 383ppm
			TMAH triflate	TMAH tosylate
р	Н	N/A	<1	<1
Bake temp. (0	C)/Time (Sec.)	130/200C 50sec	130/240C 90sec	130/240C 90sec
Met	trics	ER (A/min)	ER (A/min)	ER (A/min)
2.5% TMAH	1 min	11/5/0///	111/8/11/	11/1/6
@ 21°C	2 min	1// 1/62///		8///
E00:4DOE	30 sec		969	689
500:1BOE @ 21°C	1 min	///////////////////////////////////////	844	(A)
ا سادات	2 min	1/ [888]	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	665

ER: Etch Rate (A/min);

Pre: Pre-Immersion SOG Film Average Thickness in Angstrom;

ER > 1000A/min
ER < 1000A/min
Bare Si post-etch

[] Post-etch film is highly non-uniformed.

	"N" wt / Si comp. Wt (ppm)	"N" mole / Si comp. Wt (ppm)	"N" mole / Si comp. Wt (ppm) (consider 95% TMAA and 96% TMAN
AS_TMAA	589	4.422	4.201
TMAN	601.2	4.416	4.239

Table 13

			193 Abs	193 Absorbing Composition + TMAA	+ TMAA	
Bake temp. (C)/Time (Sec.)	(Sec.)	130/150C 90sec	130/175C 90sec	130/200C 90sec	130/225C 90sec	130/250C 90sec
Metrics		ER (A/min)	ER (A/min)	ER (A/min)	ER (A/min)	ER (A/min)
2.5% TMAH @ 21°C	1 min	1-	5	2-	-2	6-
PGMEA @ 21'C	6 min	0.4	9.0-	-0.4	-0.2	6'0-
0.10 @ L	30 sec	358	251	206	165	144
300.15∪E @ ∠1 ℃	1 min	331	273	215	191	176

			193 Abs	193 Absorbing Composition + TMAN	+ TMAN		248 Absorb. Comp.
Bake temp. (C)/Time (Sec.)	(Sec.)	150/150C 50sec	130/175C 90sec	130/200C 90sec	130/225C 90sec	130/250C 90sec	130/200C 60sec
Metrics		ER (A/min)	ER (A/min)	ER (A/min)	ER (A/min)	ER (A/min)	ER (A/min)
2.5% TMAH @ 21°C	1 min	1	6-	-1	1	3	882
PGMEA @ 21°C	6 min	-0.7	-0.2	-0.7	0.1	-0.1	21
7.70 S JOB 1002	30 sec	574	403	261	238	186	1140
300.1BUE (@ 21 C	1 min	552	413	312	244	198	983

Spin Coated @7 PM on 5/22/03; Wet Process

Table 14

		193	400	1 A.A
			193	248
		Absorbing	Absorbing	Absorbing
Descriptio	ons	Comp.	Comp.	Comp.
		+ 600ppm	+ 600ppm	
	į	TMAN	Stabilized TMAA	
pН		1.7	0.5	N/A
Bake temp. (C)	/Time (Sec)	130/240C 90sec	130/240C 90sec	130/200C 50sec
DIWater Cont	tact Angle	78.7	78.9	74.9
Metric	CS	ER (A/min)	ER (A/min)	ER (A/min)
2.5% TMAH	1 min	-7	-9	45
@ 21°C	2 min	-8	-10	47
500:1BOE	30 sec	263	277	785
@ 21°C	1 min	506	410	937
	2 min	413	366	720
DIWater Cont	tact Angle	77.5	78	74.2
Metric	cs	ER (A/min)	ER (A/min)	ER (A/min)
2.5% TMAH	1 min	-10	-13	12
@ 21°C	2 min	-8	-1	30
500:1BOE	30 sec	230	174	715
@ 21°C	1 min	370	268	796
	2 min	370	230	670
DIWater Cont	tact Angle	79.2	77.2	72
Metric	cs	ER (A/min)	ER (A/min)	ER (A/min)
2.5% TMAH	1 min	-10	-11	24
@ 21°C	2 min	- 9	-7	40
500:1BOE	30 sec	223	215	931
@ 21°C	1 min	400	307	964
	2 min	405	313	[720]
DIWater Cont	act Angle	77.5	78.3	70
Metric	cs	ER (A/min)	ER (A/min)	ER (A/min)
2.5% TMAH	1 min	-4	1	96
@ 21°C	2 min	-6	-1	96
500:1BOE	30 sec	266	256	935
@ 21°C	1 min	326	274	912
	2 min	[351]	[319]	[722]

		248	193	193
		Absorbing	Absorbing	Absorbing
Descrip	tions	Comp.	Comp.	Comp.
			+ 600ppm	+ 600ppm
			Stabilized TMAA	TMAN
Bake te	emp. (C)	130/200C	130/240C	130/240C
DIWater Co	ontact Angle			
Me	trics	ER (A/min)	ER (A/min)	ER (A/min)
2.5% TMAH	1 min	67	-3	-5
@ 21°C	2 min	62	-2	-6
500:1BOE	30 sec	815	158	219
@ 21°C	1 min	688	171	252
	2 min	621	173	312
NE - 14	30 sec	2833		
@ 21°C	1 min	>2815		
DIWater Co	ontact Angle			
Me	trics	ER (A/min)	ER (A/min)	ER (A/min)
2.5% TMAH	1 min	31	-2	-6
@ 21°C	2 min	49	-2	-4
500:1BOE	30 sec	230	154	195
@ 21°C	1 min	753	181	303
	2 min	[605]	188	320
NE - 14	30 sec	2636		<u> </u>
@ 21°C	1 min	>2710		
DIWater Co	ontact Angle			
Me	trics	ER (A/min)	ER (A/min)	ER (A/min)
2.5% TMAH	1 min	74	-8	2
@ 21°C	2 min	80	-2	1
500:1BOE	30 sec	839	165	234
@ 21°C	1 min	742	188	282
	2 min	655	188	315
NE - 14	30 sec	3040		
@ 21°C	1 min	>2792		
			·	

Table 16

		248	193	193
		Absorbing	Absorbing	Absorbing
		Comp.	Comp.	Comp.
Descriptions	tions		+ 600ppm	+600ppm
			Stabilized TMAA	TMAN
Bake te	Bake temp. (C)	130/200C	130/240C	130/240C
DIWater Co	DIWater Contact Angle			
Met	Metrics	ER (A/min)	ER (A/min)	ER (A/min)
2.5% TMAH	1 min	23	-2	l-
@ 21.C	2 min	56	1	9-
500:1BOE	oes 08	002	173	184
@ 21°C	1 min	889	156	253
	2 min	601	168	286
NE - 14	oes 0£	1732		
@ 21.C	1 min	>2825		

																	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
193	Absorbing	Comp.	mddn/ni+	"optimized"	APTEOS	triflate	<2	130/280°C		ER	[850]		27	4	129	0	46	211	14	41	332
193	Absorbing	Comp.	mddn/ni+	"optimized"	APTEOS	triflate	<2	130/250°C		ER	884		2	19	179	20	38	321	26	115	462
193	Absorbing	Comp.	mddn/oI+	"optimized"	APTEOS	triflate	<2	130/240°C		ER	912		7-	8-	228	-15	47	406	12	205	745
193	Absorbing	Comp.	mddo/or+	"optimized"	APTEOS	triflate	<2	130/220°C	oes 06	ER	[1111]		98	45	372	21	123	624	52	294	006
193	Absorbing	Comp.	mddn/nI+	"optimized"	APTEOS	triflate	<2	130/200°C		ER	1311		31	06	446	-	222	782	09	485	1282
193	Absorbing	Comp.	mddn/ni+	"optimized"	APTEOS	triflate	<2	130/200°C		ER	[1354]		72	105	622	81	256	789	93	704	[1493]
193	Absorbing	Comp.	mddn/ni+	"optimized"	APTEOS	triflate	<2>	130/180°C		ER	[1405]		82	144	197	37	347	1261	196	992	[1981]
193	Absorbing						1.5	130/200°C	oes 06	ER	[1568]		25	100	781	43	298	1212	166	716	>2706
248	Absorbing	Comp.	248.2100.200	mm			N/A	130/200°C	50 sec	ER	748		9/	780	1931	no data	>3522	>3566	>3511	>3536	>3571
								0000	חבוובם	1 min @	20, C	1 min @	23° C	20°C	75° C	23°C	20°C	75° C	23°C	20°C	75° C
			Description				Hd	October Section	pake sed	500:1	BOE	TMAH	7000	2.3% aq.		700	5.0% aq.	LIWINI	70 00	10.0% aq.	

		248	193	193	193	193	193
		Absorbing	Absorbing	Absorbing	Absorbing	Absorbing	Absorbing
		Comp.	Comp. Rev A	Comp. Rev A	Comp. Rev A	Comp. Rev A	Comp. Rev A
Description	tion	248.2100.200	+1070ppm	+1070ppm	+1070ppm	+1070ppm	+1070ppm
		mm	"optimized"	"optimized"	"optimized"	"optimized"	"optimized"
			APTEOS	APTEOS	APTEOS	APTEOS	APTEOS
			triflate +	triflate +	triflate +	triflate +	triflate +
			1.5% DPG	1.5% DPG	1.5% DPG	1.5% DPG	1.5% DPG
Hd		N/A	<2	Z>	<2	\$	\$
Baka Codilopco	00001	130/200°C	130/180°C	130/200°C	130/220°C	130/240°C	130/260°C
טמאק טקע	מפונים	50 sec			oes 06		
500:1	1 min @	ER	ER	ER	ER	ER	ER
BOE	20. C	[846]	[1608]	[1439]	[1282]	[1219]	[1113]
TMAH	1 min @						
7000	23. C	82	74	92	18	42	19
2.3% aq. TMAH	20°C	393	386	146	123	10	23
Civi	2£. C	1988	2567	1483	1090	590	538
E 00/ 52	23°C	818	110	54	27	73	42
3.0% äq. TMAH	20.C	>3509	626	400	275	86	65
C	22. C	>3484	>2862	>2867	1366	906	856
10.00/ 22	23. C	>3486	503	105	75	31	28
TMAH	20°C	>3509	626	400	275	98	99
I WIN WILL	75° C	>3474	>2804	>2819	>2821	1616	1283

d" "optimized" "optimized" "optimized" "optimized" "optimized" "optimized" "optimized" MSA + MSA	ြ ပြု ပြု ဖြ	"optimized" APTEOS MSA + 1.5% DPG <2 <130/180°C 90 sec ER [1385]	"optimize APTEO: MSA + 1.5% DP 1.5% DP 1.5% DP 1.5% DP 1.5% DP 1.5% DP 62 <2 90 sec 90 sec ER ER [1368]
MSA + MSA + 1.5% DPG 1.5% DPG < 2 <2 <2 <3 0.00 Sec 90 Sec 90 Sec ER ER ER ER 1086 852 < 12 <4 36 <5 0.00 Sec 507 518 36 <5 0.00 Sec 507 518 36 <5 0.00 Sec 507 518 508 695 686	A + A + DPG	- 	
<2 <2 <2 <130/200°C 130/220°C 90 sec 90 sec 90 sec 90 sec 1086 852	<2 180°C sec ER 385] 54	+	
130/200°C 130/220°C 90 sec 90	7180°C 1 sec ER 385]		
90 sec ER 852 12 36 518 4 4 78) sec ER 385] 54	96	
ER 852 12 36 36 518 4 4 78	385] 54	[1]	
852 12 36 518 4 78 686	385] 54	1	
12 36 518 4 78 686	54		
12 36 518 4 78 686	4		
36 518 4 78 686		3	3 25
518 4 78 686	131		100
78	1129		781 1
78	46		43
989	444		298
	>2889	^	1212 >;
26 32	94		166
387 168	906		716
[1515] 1172 746	>2831	_	>2706

Materials	рН	Days at 40C	Mn	Mw	Mp	Mz	Mz+1	PDI
193 Absorb. Comp. Rev A + 1070ppm	4 720	0	082	1109	735	1488	1844	1.422
"opt" apteos triflate	1.132	2	1062	1568	1329	2188	2853	1.476
193 Absorb. Comp. Rev A + 1070ppm	6/	0	168	1269	754	1722	2179	1.424
"opt" apteos triflate +1.5% DPG	7	2	1058	1486	1198	1995	2520	1.404
193 Absorb. Comp. Rev A + 1070ppm	67	0	088	1241	749	1680	2127	1.41
"opt" apteos msa +1.5% DPG	,	2	1006	1410	1175	1887	2364	1.402
5 days at 40C 193AC	Mn	MW	110 nn	110 nm via fill				
pH1.5 + 2000ppm nitric acid acidified TMAA	1289	1641	N ON	No voiding				

		248	193	3	193	193	193	193	193	193
		Absorbing	Absorbing	bing	Absorbing	Absorbing	Absorbing	Absorbing	Absorbing	Absorbing
		Comb.	Comp.	۾	Comp.	Comp.	Comp.	Comp.	Comp.	Comp.
Description		248.2100.200		۸	pH 5.5	Rev A +	Rev A +	Rev A +	Rev A +	Rev A +
•		mm			-	1070ppm +	1070ppm +	1070ppm +	1070ppm +	1070ppm +
					-	APTEOS	APTEOS	APTEOS	APTEOS	APTEOS
						Nitrate	Nitrate +	Nitrate +	Nitrate +	Nitrate +
							1.5% DPG	3% DPG	6% DPG	9% DPG
Hd		N/A	1.5		5.5	~	<2	<2>	<2	<2
00/00	0000	130/200°C	130/200°C	၁.0	130/240°C	130/240°C	130/240°C	130/240°C	130/240°C	130/240°C
pake Sequence	20120	50 sec N2	90 sec N2	3 N2	60 sec N2	90 sec N2	90 sec N2	90 sec N2	90 sec N2	90 sec N2
500:1	1 min @	ER			ER	ER	ER	ER	ER	ER
BOE	20. C	675		[1568]	612	422	[545]	571	681	626
TMAH	1 min @		Pre	띪						
2 700 0	23. C	72	2694	22	1	87	<i>L</i> -	40	99	62
2.3% aq. ⊤млы	20°C	525	2663	100	-11	42	9	28	20	26
	75. C	2018	2702	781	142	117	326	224	347	463
,00 L	23. C	485	2679	43	2	40	-5	32	13	10
5.0% aq.	20, C	>3536	2723	298	6-	20	18	17	21	13
Ž	22° C	>3527	5698	1212	339	119	208	259	524	9//
40.00%	23.C	>3461	2687	166	-17	33	-2	20	36	14
10.0% aq.	20° C	>3469	2670	716	142	14	81	106	20	80
	75. C	>3514	2706 >2706	>2706	829	219	1040	546	1075	1573

Description	Thickness	1 dev	Reflectance	n @ 193nm k @ 193nm	k @ 193nm
					:
193 Rev A	1469	12.2	9.77	1.8027	0.3811
193 Rev A + 1070 ppm APTEOS Triflate	1502	15.4	10.26	1.8019	0.3469
193 Rev A + 2140 ppm APTEOS Triflate	1514	12.1	10.33	1.7945	0.3304
193 Rev A + 5350 ppm APTEOS Triflate	1509	15.4	10.18	1.7931	0.3362
193 Rev A + 8025 ppm APTEOS Triflate	1512	9.7	10.19	1.7918	0.3329
193 Rev A + 10700 ppm APTEOS Triflate	1506	12.7	10.15	1.7958	0.3427
193 Rev A + 25000 ppm APTEOS Triflate	1500	12.2	10.14	1.7998	0.3526
193 Rev A + 40000 ppm APTEOS Triflate	1533	10.5	10.16	1.7793	0.3276

ppm APTEOS Triflate	40C Aging	Mn	ΜM	Mp	Mz	Mz+1	Polydispersity
402 D	0	920	1283	692	1724	2173	1.395362
193 Rev A + 10/0 ppm AF IEOS I mate	5	1279	1681	1405	2174	2706	1.314284
STATE OF THE STATE	0	754	1119	744	1562	2000	1.483957
193 Kev A + Z 140 ppiil AF 1EOS Tillate	2	9 96	1378	882	1897	2455	1.442483
403 BAY A ± 5250 mm ADTEOS Trifloto	0	9/8	1226	754	1640	2046	1.3994
193 Rev A + 3330 ppin Ar 1 EOS Tilliate	5	984	1367	6//	1819	2268	1.38917
CACIBILITY OF THE STORY AND STORY	0	228	1228	754	1646	8502	1.40051
193 Rev A + 8023 ppill Ar 1 EOS Tilliate	5	886	1369	1112	1812	2247	1.38518
STOREST SO STORY WAS NOTOR + A 1.00 504	0	928	1226	222	1642	202	1.40143
193 Nev A + 107 to ppill Ar 1 EOS 1 IIII are	5	1001	1396	1156	1860	2320	1.3942
STORY WES COURT VING COF	0	948	1204	764	1635	2060	1.42421
193 Rev A + 25000 ppin Ar 1 EOS Tilliate	5						
Challier SOSTON was 00000 ± 6 120 501	0	835	1169	755	1930	1930	1.39928
193 Nev A + 40000 ppill Ar 1 EOS 1 illiade	5	846	1260	773	1726	2168	1.489298

Description	ition	248 Absorbing Comp. 248.2100.200	193 Absorbing Comp. Rev A	193 Absorbing Comp. Rev A +	193 Absorbing Comp. Rev A +
		E		10,700ppm APTEOS triflate (10x)	40,000ppm APTEOS triflate (37x)
Hd		N/A		<2.5	<2.5
Doko Cogilopoo	00001	130/200°C	130/200°C	130/240°C	130/240°C
Dane Oct	מפווכם	50 sec N2	90 sec N2	90 sec N2	90 sec N2
500:1	1 min @	ER	ER	ER	ER
BOE	20. C	121	[1568]	9//	[1116]
TMAH	1 min @		1 1		
2 20%	23. C	2322	25	22	45
7.3% ad.	50° C	493	100	8-	92
	75° C	1488	781	334	[2252]
E 00/ 00	23° C	287	43	-25	9-
3.0% aq.	50. C	[1604]	298	69	809
CIAL	75° C	[2639]	1212	309	2709
40.00, 02	23°C	>3491	166	8-	17
10.0% aq.	20, C	>3427	716	162	878
	75° C	>3443	>2706	1440	>2912